

REMARKS

Claims 1-22 are pending in the application. Claims 4 and 10 have been withdrawn as being directed to a non-elected species (Species B). Claims 16-22 have been withdrawn as being directed to a non-elected invention (Group III). In the Office Action mailed February 13, 2008, the restriction requirement for claims 1-3 has been withdrawn. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. App. Pub. No. 2003/0017424 (Park et al.; hereinafter "Park"). Claims 5-9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of U.S. Pat. App. Pub. No. 2003/0095170 (Johnson). Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of Johnson and further in view of U.S. Pat. App. No. 6,517,995 (Jacobson et al.; hereinafter "Jacobson").

I. Rejections under 35 U.S.C. 102(e)

Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Park. The Applicants respectfully traverse the rejections. The Applicants' invention differs from the teaching of Park in the manner in which the surfaces of the Applicants are brought into contact.

In particular, in the Applicants' invention, the bowed first surface is moved toward the second surface, under controlled pressure, without the entrapment of air. The latter is accomplished by pushing air ahead of a moving contact line between the first and second surface [Specification at least at paragraphs [0022]-[0025]]. In contrast, Park teaches only bending or bowing the imprint master so that a central portion contacts the molding layer first, after which the peripheral portions are contacted. Park does not teach contacting the imprint master under controlled pressure or intentionally pushing air ahead of a moving contact line between the imprint master and molding layer. Park therefore fails to teach the step of moving the first surface toward the second surface, under controlled pressure, by pushing air ahead of a moving contact line between the first and second surface of the Applicants' invention.

In order to more particularly point out and claim this aspect of the Applicants' invention, the Applicants have herein amended independent claim 1 to recite that the step of continuing to move the bowed first surface toward the second surface is performed under controlled pressure by the step of pushing air ahead of a moving contact line between the first and second surface.

Support for this amendment is found in the Specification at least at paragraphs [0009], [0022]-[0025], and [0036], in the Abstract, and in Fig. 2. No new matter has been added by this amendment, entry of which is respectfully requested. As previously discussed, Park fails to teach moving the first surface toward the second surface, under controlled pressure, by pushing air ahead of a moving contact line between the first and second surface. Because Park fails to teach moving the first surface toward the second surface, under controlled pressure, by pushing air ahead of a moving contact line between the first and second surface, as claimed by the Applicants in amended claim 1, Park fails to anticipate or make obvious the Applicants' claimed invention, whether taken alone or in combination, as does all other art of record.

The deficiencies of Park are not cured by any other art of record. Reconsideration and withdrawal of the rejections of claim 1, as amended, is therefore respectfully requested. In addition, because claims 2 and 3 depend from currently amended independent claim 1, which is in condition for allowance, claims 2 and 3 are also in condition for allowance. Reconsideration and withdrawal of the rejection of claims 2 and 3 is therefore respectfully requested.

II. Response to rejections under 35 U.S.C. 103(a)

Claims 5-9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of Johnson. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of Johnson and further in view of Jacobson. The Applicants respectfully traverse the rejections. The claimed invention is not unpatentable, because the art of record fails to teach moving the first surface toward the second surface, under controlled pressure, by pushing air ahead of a moving contact line between the first and second surface.

As discussed in Section I, in the Applicants' invention, the bowed first surface is moved toward the second surface under controlled pressure, by pushing air ahead of a moving contact line between the first and second surface. In order to more particularly point out and claim this aspect of the Applicants' invention, the Applicants have herein amended independent claim 5 to recite that the step of creating a pattern in the thin film of material by bringing a stamp into contact with the offset substrate is performed by the steps of bowing the stamp in a controlled manner, moving the bowed stamp toward the second surface at a predetermined rate until the first surface contacts the second surface at a single point of contact, and continuing to move the bowed stamp toward the offset substrate, under controlled pressure, by pushing air ahead of a

moving contact line between the stamp and offset substrate until the single point of contact expands to a circle of desired radius. Support for this amendment is found in the Specification at least at paragraphs [0009], [0022]-[0025], and [0036], in the Abstract, in original claim 8, and in Fig. 2. No new matter has been added by this amendment, entry of which is respectfully requested. Claim 8 has been cancelled in light of the incorporation of the elements from claim 8 into claim 5. Claim 9 and currently withdrawn claim 10 have been amended to depend from claim 5 instead of cancelled claim 8 and to reflect the amendments made to claim 5. No new matter is added by these amendments, entry of which is respectfully requested.

As discussed in Section I, Park fails to teach moving the first surface toward the second surface, under controlled pressure, by pushing air ahead of a moving contact line between the first and second surface. Because Park fails to teach moving the first surface toward the second surface, under controlled pressure, by pushing air ahead of a moving contact line between the first and second surface, as claimed by the Applicants in amended claim 5, Park fails to anticipate or make obvious the Applicants' claimed invention, whether taken alone or in combination, as does all other art of record. These deficiencies of Park are not cured by Johnson, Jacobson, or any other art of record. Reconsideration and withdrawal of the rejections of claim 5, as amended, is therefore respectfully requested.

In addition, because claims 6-9 and 11-15 depend from currently amended independent claim 5, which is in condition for allowance, claims 6-9 and 11-15 are also in condition for allowance. Reconsideration and withdrawal of the rejection of claims 6-9 and 11-15 is therefore respectfully requested.

With respect specifically to the rejection of claim 6, the rejection of claim 6 acknowledges that "Park et al. as modified [by Johnson] fail to specifically mention the values of the contact angles of the surfaces in question. However, one having ordinary skill in the art would recognize that utilizing surfaces with different contact angles will facilitate pattern transfer and would have been motivated to modify Park et al. ... in order to facilitate the pattern transfer process." The Applicants have interpreted this rejection as taking "Official Notice" that this element is "notoriously well known in the art". The Applicants respectfully maintain that, as is claimed by the Applicants, utilizing a contact angle for the stamp lower than the contact angle of the offset substrate and a contact angle for the final substrate lower than the contact angle of the offset substrate in order to facilitate pattern transfer is not notoriously well known in the art, and therefore request that the Examiner provide a specific reference to support his position.

MPEP 2144.03 sets forth the procedure for reliance on common knowledge in the art or taking Official Notice. MPEP 2144.03(A) states that “Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known.” MPEP 2144.03(B) states that the “examiner must provide sufficient factual findings predicated on sound technical and scientific reasoning to support his or her conclusion of common knowledge.” “If Applicant challenges a factual assertion as not properly officially noticed or not properly based upon common knowledge, the Examiner must support the finding with adequate evidence” (MPEP 2144.03(C)).

The Applicants note that the prior art methodology for contact printing typically involves contacting the master to the substrate in a substantially parallel manner. The angle of incidence is minimized in order to obtain maximum print clarity. The concept of bowing the master in order to deliberately create an angle of contact between master and substrate is not well known in the art in the art, and therefore the concept of utilizing *specific* contact angle relationships is therefore also novel in the art. The Applicants therefore respectfully state that utilizing a contact angle for the stamp lower than the contact angle of the offset substrate and a contact angle for the final substrate lower than the contact angle of the offset substrate, as is claimed by the Applicants, is not “notoriously well known in the art”, and therefore respectfully request that a specific reference be provided to support this finding with adequate evidence.

III. Conclusion

Claims 1-22 are pending in the application. Claims 4, 10, and 16-22 are withdrawn. Claims 1, 5, 9 and 10 have been amended. Claim 8 has been cancelled. The Applicants respectfully submit that claims 1-3, 5-9, and 11-15 are in condition for allowance, which action is therefore requested. Further, generic claims 1 and 5 being allowable, the Applicants respectfully request rejoinder and allowance of withdrawn species claims 4 and 10. The Applicants further believe that this application is now in condition for allowance, which action is now earnestly and respectfully solicited. Should there remain any unresolved issues, it is respectfully requested that the Examiner telephone Norma E. Henderson, Applicant’s Attorney, at 603-437-4400, so that such issues may be resolved as expeditiously as possible.

Respectfully Submitted,



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